B.C. Copper Deposits

The British Columbia Ministry of Energy, Mines and Petroleum Resources' MINFILE database lists **6831** copper-bearing occurences in the province; **3566** of these list copper as the primary commodity. Those with mineral inventories include: current producers (6), past producers (432), developed prospects (300) and prospects (1143). Total copper production (1894 to 2005) is approximately 12 Mt, valued at **$25** billion dollars. The top 15 deposits account for 90% of total production. Total in-ground resources in 215 deposits are estimated at 23 Mt of copper. The 15 largest deposits account for 92% of total resources.

Porphyry Cu-Au: Alkalic [L03] Mainly restricted to the late Triassic/Early Jurassic (215-180 Ma). Deposits: 10 to > 300 Mt grading 0.2 to 1.5% Cu, 0.2 to 0.6g/t Au and > 2g/t Ag (e.g. Mount Polley).

Porphyry Cu+/-Mo+/-Au: Calcalkalic [L04] Mainly Triassic/Jurassic (210-180 Ma) and Cretaceous/Tertiary (85-45 Ma). Deposits: < 50 to > 900 Mt grading, 0.2 to 1% Cu, <0.1 to 0.6g/t Au, 1 to 3g/t Ag and 0 to 0.04% Mo (e.g. Highland Valley Copper).

Porphyry Cu-Au+/-Ag: Subvolcanic/Transitional Intrusion-related [L01] Mainly Cretaceous and Tertiary. A transitional deposit between porphyry copper to epithermal environment. Deposits: > 30 Mt grading 0.25% Cu, 86g/t Ag and 1g/t Au (e.g. Equity Silver).

Massive Sulphide Cu-Zn: Besshi [G04] Mainly Cambrian and Late Triassic. Deposits: < 1 Mt to > 113 Mt (e.g. Windy Craggy)

Massive Sulphide Cu (Zn): Cyprus [G05] Primarly Mississipian-Permian or Late Triassic. Deposits: 0.7 to 23.7 Mt grading up to 3% Cu, 1g/t Au, 10g/t Ag and 0.5% Zn (e.g. Anyox).

Massive Sulphide Cu-Zn: Kuroko/Noranda [G06] Mainly Devonian. Deposits: < 1 to 2 Mt to 10 Mt, with grades up to 2% Cu, 3.5% Zn, 0.3% Pb, 30.4g/t Ag and 2.1g/t Au (e.g. Myra Falls).

Massive Sulphide Zn-Pb-Ag-Cu: Sedex [E14] Mainly Middle Devonian to Mississipian.

Vein-Mesothermal Cu-Ag: [I05 + I06] Mainly Tertiary.

Skarn Cu: [K01 + K04] Mainly Early to Mid-Jurassic. Deposits: Up to 34 Mt grading 1.3% Cu (e.g. Craigmont).

Ultramafic/Mafic Ni-Cu: Gabbroid [M02] Archean to Proterozoic. Deposits: Up to 30 Mt grading 0.77% Ni and 0.47% Cu, but can be much higher grade (e.g. Giant Mascot)

Ultramafic/Mafic: Alaskan Type PGE [M05] (e.g. Turnagain)

Volcanic Redbed Cu: [D04] Triassic. Up to 5 Mt grading 1.5% Cu (e.g. Sustut)

GALORE CREEK

* Owned by NovaGold Resources
* Resources (2005): [Discovered in 1955]
  - Measured + Indicated: 516 Mt @ 0.6% Cu, 0.36 g/t Au, 4.54 g/t Ag
  - Inferred: 578.3 Mt @ 0.41% Cu, 0.42 g/t Au, 4.35 g/t Ag
* Approximately $1.4 B capital cost

HIGHLAND VALLEY COPPER

* Operated by Teck Cominco Ltd.
* World's 5th largest producer of copper concentrate
* 2005 Production: 172 000 t Cu; 3000 t Mo
* Employment ~ 900; Mill Rate ~ 135 000 tpd
* Mine life to 2013; $40M expansion costs

For more information:

www.em.gov.bc.ca/Mining/Geolsurv (604) 660-2812

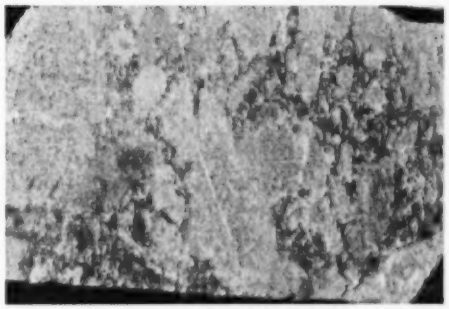
Porphyry Deposits of the Northwestern Cordillera of North America (1995): Edited by T.G. Schroeter. CIM Special Volume 46, 900 pages.

Volcanogenic Massive Sulphide Deposits of the British Columbia Cordillera (1996): Edited by T.J. Barrett, A.E. Williams-Jones and J.J. Jambor. CIM - Exploration and Mining Geology, 458 pages.

Produced by: T.G. Schroeter, E. Man and J. Chou, 2006

Copper in British Columbia

Stockwork Copper (Highland Valley)

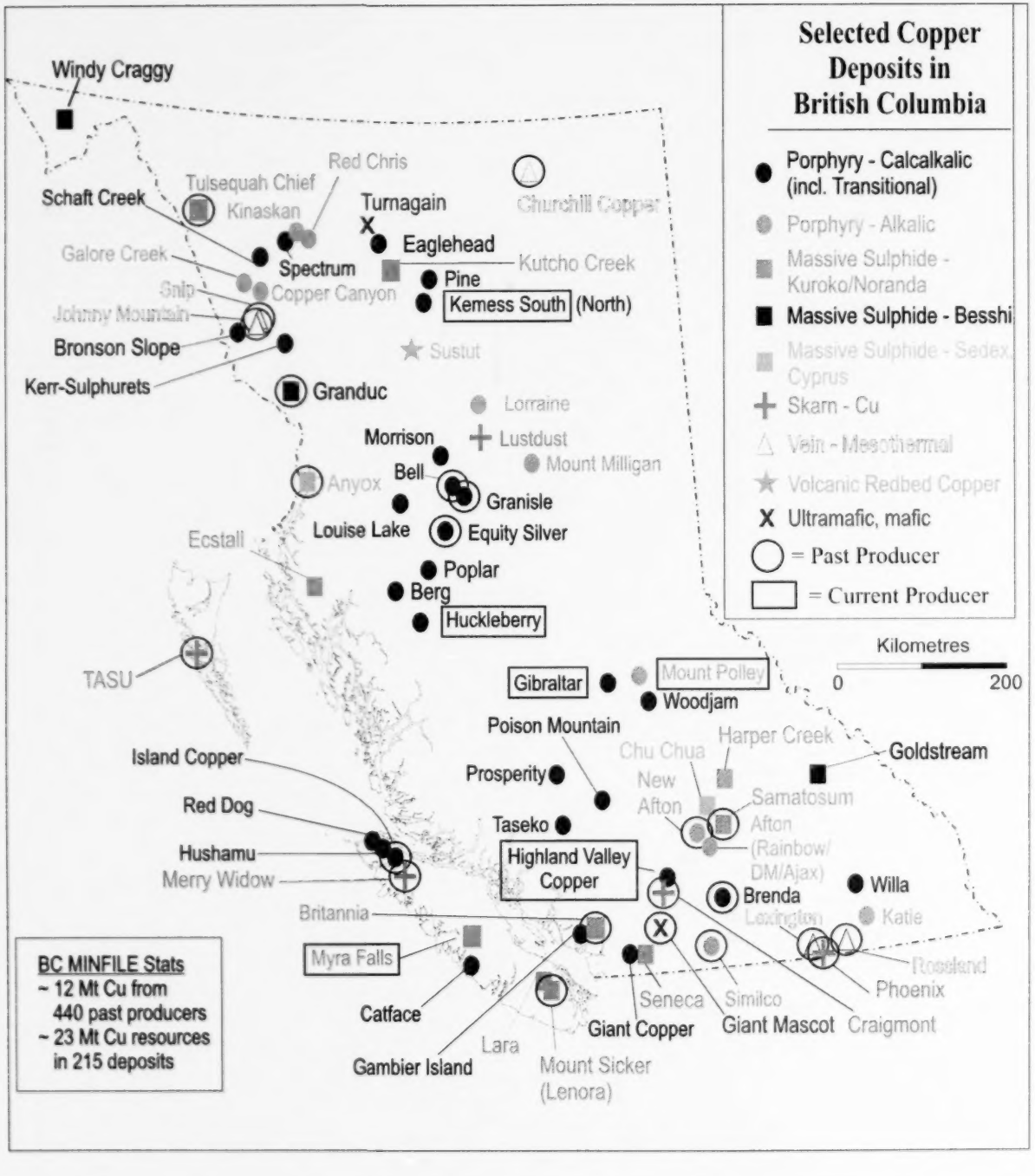


Breccia Copper (Mount Polley)

BRITISH COLUMBIA

Ministry of Energy, Mines and Petroleum Resources

Information Circular 2006-5



Copper Production in BC (to end 2005)

MINE * = current	MILLED t (x10³)	Cu t (x10³)	Mo t (x10³)	Au (t)	Ag (t)
*HVC[1]	1,252	4,634	75	9.5	1,516
ISLAND COPPER	367	1,227	32	35.3	294
*GIBRALTAR	306	972	9	.14	106
SIMILCO CAMP	186	918		22.8	294
BRITANNIA	47	297		15.4	181
CRAIGMONT	35	811		.08	.24
*MYRA FALLS	21	197		31.3	900.9
ANYOX CAMP	20	326		3.9	215
BELL	77	1,015		12.9	38.3
*HUCKLEBERRY	29.3	529	3.3	0.9	26

[1] = Highland Valley Copper Camp (incl. Valley, Lornex, Bethlehem)

Selected BC Copper Deposits Ranked by Contained Copper

Mine * = current	Estimated Tonnage t (x10³)	Contained Copper t (x10³)	Grades % Mo	g/t Au	g/t Ag	Contained Metal (t)
*Galore Creek	M + Ind. 516.7	2,580		0.36	4.54	9,418
	Inf. 578.3	1,843		0.42	4.35	
Windy Craggy	297.4	1,338		0.2	3.83	1,104
Schaft Creek	407.2	1,019	0.024	0.277	2.143	1,543
Bell	296	1,006		0.2		592
Kerr	140.8	676		0.36		507
Sulphurets Gold	54.8	263		1.02		559
Prosperity	490.8	1,963		0.43		1,060
Berg	238	954	0.03		2.84	954
*Kemess South	86.6	433		0.67		1,865
Kemess North	414	1,242		0.31		
Hushamu	M + Ind. 230.9	1,038	0.009	0.309		964
	Inf. 52.8	198		0.377		
Poison Mountain	Copper Cr. 280	1,120	0.007	0.14	0.51	1,344
	Fenton Cr. 18.3	41		0.13		
*New Afton	68.7	103		0.83	2.49	571
Gibraltar	189	945	0.01	0.007		1,890

*43-101 Compliant M = measured; Inf = inferred; Ind = indicated